

**Savannah River Site
Citizens Advisory Board**

**Recommendation #275
Research and Development for Reprocessing of Used Nuclear Fuel**

Background

The Blue Ribbon Committee (BRC) on America's Nuclear Future may suggest that reprocessing of Used (Spent) Nuclear fuel is a viable option and should be studied further. H-Canyon offers a capability for needed R&D studies and should be retained as such until the BRC presents its recommendations to the DOE.

The shielded Chemical Processing H-Canyon is an ideal facility for feasibility and cost studies for many aspects of reprocessing. Further, Used Nuclear Fuel currently being stored in L-Basin could possibly be used to support this work.

SRS has traditionally received Used Nuclear Fuel at the Site for disposition. Much of this material has been processed through H-Canyon and the CAB supports this program. The presence of this material may provide research and development opportunities in H-Canyon in support of nuclear fuel reprocessing technologies. In general, the CAB supports any such related studies that extend the life and use of Site facilities in the performance of work that is comparable to the production activities of the past 55 years.

In view of this it would be prudent for the Site to be proactive in establishing SRS as a location to be considered in R & D for nuclear fuel reprocessing.

Recommendations:

1. Assess the nuclear materials and Used Nuclear Fuel at SRS and determine if there are some materials on-site that could be processed that would serve the dual role of permanently stabilizing the nuclear materials and at the same time providing research and development information that would be useful to the nuclear community if reprocessing of nuclear fuel became viable.
2. Assess the capabilities of H Canyon and determine what aspects of this operational capability would be likely to contribute to research and development for reprocessing.
3. Present this concept to DOE-HQ for consideration.